

## REMARKS

The Office Action, mailed July 1, 2008, has been received and its contents carefully noted. The then pending claims, claims 1, 6, 7, 9 and 21-22, were rejected. By this Response, claims 1, 6, 7, 9 and 21-22 have been amended. Support may be found in the specification and the claims as originally filed. Therefore, reconsideration and entry of the claims, as amended, are respectfully requested.<sup>1</sup>

### Rejection under 35 U.S.C. 102(b)

The Examiner rejected claims 1-5, 8-10, 13-14 and 17-18 under 35 U.S.C. 102(b) as being anticipated by Suzuki (US 20020014483). Specifically, the Examiner deemed that Suzuki discloses the claimed invention at col. 6, lines 55-60, col. 9, lines 12-29, and col. 10, lines 42-65. This rejection is traversed.

As amended, the claims (process, and controller in the apparatus claims) recite particulars of Applicants' calibration, in particular they recite determining the correction value based in part on a comparison of the temperature difference between the temperature recorded by the sensor closest to a heating element and the measured temperature of that heating element. This measure calibrates the thermal model for use in the particular thermal treatment apparatus. See paragraph 41. The corrective procedure adapts a selected standard thermal model for use in a particular apparatus then, the corrected thermal model is stored with a setup procedure in the heat treatment apparatus (1). The recipes can then be run more efficiently. There is no comparable calibration step taught in Suzuki. See paragraph 61. The designing method mentioned in paragraph 61 also does not include a calibration step. See paragraph 71.

---

<sup>1</sup> This determination is supported at least by paragraphs [0069] to [0075] of the specification. It includes:

- determining a relationship between an amount of change ( $\Delta T_t$ ) in the temperature of one (e.g. 32) of the heaters and amounts of change (e.g.,  $\Delta T_{s1}, \dots, \Delta T_{s5}$ ) in the measured temperatures of the temperature sensors ( $S_1, \dots, S_5$ );
- determining a difference between an estimated temperature of one (e.g., S4) of the temperature sensors located closest to the heater, which estimated temperature is estimated by using the thermal model, and an actual temperature of said one (e.g. S4) of the temperature sensors measured by the same; and
- calculating a correction value (e.g., Expression 7) based on the determined relationship and the determined difference. The correction value is applied to the temperature model such that the estimated temperature of said one heater (e.g. 32) estimated by the thermal model is corrected by using the correction value.

Applicants respectfully submit that Suzuki fails to teach or suggest a calibration embodiment- program, circuitry or step sequence. Therefore, Applicants respectfully urge that the claims, as amended, are novel. The rejection under 35 U.S.C. 102(b) should be withdrawn since the reference fails to teach all the elements required by the claims.

**Rejection under 35 U.S.C. 103(a)**

The Examiner rejected claims 6-7, 11-12, 15-16 and 19-20 under 35 U.S.C. 103(a) as being unpatentable over Suzuki in view of Muka (US 6,193,506). Applicants respectfully submit that Muka does not alleviate the deficiencies of Suzuki. Specifically, Muka fails to teach or suggest Applicants' steps of, or apparatus for, determining the correction value in the way that all the independent claims now describe. Muka makes no mention of a need to calibrate standard thermal models before their use in thermal treatment apparatus. Thus, Muka alone, or in combination with Suzuki, does not suggest the claimed invention. The specific comparison of the temperature of the heating element with the temperature measured by the closest temperature sensor is simply not taught or suggested.

Therefore, Applicants also respectfully urge that the claims, as amended, are unobvious. For at least these reasons, the rejection under 35 U.S.C. 103(a) should be withdrawn.

**Request for Interview**

Applicants respectfully request either a telephonic or an in-person interview should there be any remaining issues.

**CONCLUSION**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal

communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefore are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 033082M295**.

Respectfully submitted,  
SMITH, GAMBRELL & RUSSELL, LLP

Date: October 28, 2008

/Michael A. Makuch/  
Reg. No. 32,263

1130 Connecticut Ave., NW, #1130  
Washington, D.C. 20036  
Telephone: (202) 263-4300  
Facsimile: (202) 263-4329